ORDER NO. R3-2018-0017
NPDES NO. CA0048551

WASTE DISCHARGE REQUIREMENTS FOR THE MONTEREY ONE WATER REGIONAL WASTEWATER TREATMENT PLANT AND ADVANCED WATER PURIFICATION FACILITY DISCHARGE TO THE PACIFIC OCEAN

The following Discharger is subject to waste discharge requirements (WDRs) set forth in this Order:

Table 1. Discharger Information

Discharger	Monterey One Water[1]
Name of Facility	Regional Wastewater Treatment Plant (WWTP) and Advanced Water Purification Facility (AWPF), Marina, Monterey County
Facility Address	14811 Del Monte Boulevard
	Marina, CA 93933
	Monterey County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Secondary Treated Wastewater, Saline Waste, and Reverse Osmosis (RO) Concentrate	36.72778º	-121.83750º	Pacific Ocean
002	Disinfected Tertiary Recycled Municipal Wastewater	–	–	Reclamation Use

[1] Monterey One Water (abbreviated M1W) was formerly called the "Monterey Regional Water Pollution Control Agency." Prior orders issued for this facility used this name for the Discharger.

Table 3. Administrative Information

This Order was adopted on:	**December 6, 2018**
This Order shall become effective on:	**April 1, 2019**
This Order shall expire on:	**March 31, 2024**
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	**September 30, 2023**
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Central Coast Region have classified this discharge as follows:	**Major discharge**

I, John M. Robertson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region on the date indicated above.

John M. Robertson

Digitally signed by John M. Robertson
Date: 2018.12.10 18:00:32 -08'00'

John M. Robertson, Executive Officer

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TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Regional Wastewater Treatment Plant (WWTP) and Advanced Water Purification Facility (AWPF) (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

The California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board) finds:

A. **Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

B. **Background and Rationale for Requirements.** The Central Coast Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E are also incorporated into this Order.

C. **Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B, IV.C, V.B, VI.C.5.d, and VI.C.5.c. of this Order and Sections VI and VII of the Monitoring and Reporting Program are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

D. **Notification of Interested Persons.** The Central Coast Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

E. **Consideration of Public Comment.** The Central Coast Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that Order No. R3-2014-0013 is revoked and rescinded upon the effective date of this Order except for enforcement purposes and that, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Central Coast Water Board from taking enforcement action for violations of the previous Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of treated wastewater to the Pacific Ocean at a location other than as described by this Order at 36.72778° latitude, -121.83750° longitude is prohibited.

B. The secondary effluent dry weather average monthly rate of discharge from the WWTP shall not exceed 29.6 million gallons per day (MGD).

C. The influent flow to the secondary treatment system shall not exceed 29.6 MGD average dry weather flow and 75.6 MGD peak wet weather flow.

D. The rate of discharge to Monterey Bay shall not exceed 81.2 MGD.

E. The overflow or bypass of wastewater from the Discharger's collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.A.7 (Bypass), is prohibited

F. Discharge of any waste in any manner other than as described by this Order, excluding storm water regulated by General Permit No. CAS000001 (Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities), is prohibited.

G. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.

H. Federal law prohibits the discharge of sludge by pipeline to the ocean. The discharge of municipal or industrial waste sludge directly to the ocean or into a waste stream that discharges to the ocean is prohibited. The discharge of sludge digester supernatant, without further treatment, directly to the ocean or to a waste stream that discharges to the ocean is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Effluent Limitations – Discharge Point 001

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program, Attachment E:

Table 4. Effluent Limitations – Discharge Point 001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75	--	--
	lbs/day[1]	6,200	10,000	19,000	--	--
Settleable Solids	mL/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	--	230
pH[2]	standard units	--	--	--	6.0	9.0

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L

Q = observed flow rate in MGD

[2] Excursions from the effluent limit range are permitted subject to the following limitations (40 C.F.R. § 401.17):
a. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month, and
b. No individual excursion from the range of pH values shall exceed 60 minutes.
Note: 40 C.F.R. section 401.17(2)(c) notes that, for the purposes of 40 C.F.R. section 401.17, "excursion" is defined as "an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines." The State Board may adjust the requirements set forth in paragraph 40 C.F.R. section 401.17 (a) with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

b. The Discharger shall maintain compliance with the following effluent limitations with compliance measured at Monitoring Location EFF-001A as described in the Monitoring and Reporting Program, Attachment E:

Table 5. Effluent Limitations at EFF-001A

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C ($CBOD_5$)	mg/L	25	40	85	--	--
	lbs/day[1]	6,200	10,000	21,000	--	--
	% removal	not less than 85[2]	--	--	--	--
Total Suspended Solids (TSS)	mg/L	30	45	90	--	--
	lbs/day[1]	7,400	11,000	22,000	--	--
	% removal	not less than 85[2]	--	--	--	--
pH[3]	standard units	--	--	--	6.0	9.0

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the WWTP and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

[2] The average monthly percent removal of $CBOD_5$ and TSS shall not be less than 85 percent.

[3] Excursions from the effluent limit range are permitted subject to the following limitations (40 C.F.R. § 401.17):
a. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month, and
b. No individual excursion from the range of pH values shall exceed 60 minutes.
Note: 40 C.F.R. section 401.17(2)(c) notes that, for the purposes of 40 C.F.R. section 401.17, "excursion" is defined as "an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines." The State Board may adjust the requirements set forth in paragraph 40 C.F.R. section 401.17 (a) with respect to the length of individual excursions from the range of pH

values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

c. Toxic Pollutants

The Discharger shall maintain compliance with the following effluent limitations for toxic pollutants at Discharge Point 001, with compliance measured at Monitoring Location EFF-001B, as described in the attached MRP.

Table 6. Effluent Limitations for the Protection of Marine Aquatic Life – Discharge Point 001

Parameter	Units	Effluent Limitations		
		6-Month Median[1]	Daily Maximum[2]	Instantaneous Maximum[3]
Cadmium, Total Recoverable	µg/L	1.0	4.0	10
	lbs/day[4]	36	140	360
Lead, Total Recoverable	µg/L	2.0	8.0	20
	lbs/day[4]	72	290	720
Silver, Total Recoverable	µg/L	0.7	2.8	7.0
	lbs/day[4]	20	95	250
Cyanide, Total[5]	µg/L	1.0	4.0	10
	lbs/day[4]	36	140	360
Total Residual Chlorine[6], [7]	µg/L	2.0	8.0	60
	lbs/day[4]	72	290	2,200
Ammonia, Total (as N)	µg/L	600	2,400	6,000
	lbs/day[4]	22,000	87,000	220,000
Acute Toxicity[8]	Pass/Fail, % Effect	--	Pass	--
Chronic Toxicity[9]	Pass/Fail, % Effect	--	Pass	--
Endosulfan[10]	µg/L	0.009	0.018	0.027
	lbs/day[4]	0.32	0.65	0.97
Endrin	µg/L	0.002	0.004	0.006
	lbs/day[4]	0.071	0.14	0.21
Hexachlorocyclohexanes (HCH)[11]	µg/L	0.004	0.008	0.012
	lbs/day[4]	0.14	0.29	0.43
Radioactivity	--	Not to exceed limits specified in California Code of Regulations, title 22, division 4, chapter 15, article 5, section 64443		

[1] The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[2] The daily maximum shall apply to flow-weighted 24-hour composite samples except total chlorine residual, ammonia, acute toxicity and chronic toxicity which are collected as grab samples. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as Ce and the observed flow rate Q in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).

[3] The instantaneous maximum shall apply to grab sample determinations.

[4] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q

where:

Ce = the effluent concentration limit in µg/L

Q = observed flow rate in MGD

[5] If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board (subject to U.S. EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 C.F.R. part 136, as revised May 14, 1999.

[6] Water quality objectives for total chlorine residual applying to intermittent discharges not exceeding two hours shall be determined using the following equation:

$\log_y = -0.43(\log_x) + 1.8$ where: y = the water quality objective (in µg/L) to apply when chlorine is being discharged; and

x = the duration of uninterrupted chlorine discharge in minutes.

The applicable effluent limitation must then be determined using Equation No. 1 from the Ocean Plan.

[7] The Discharger is not required to disinfect secondary effluent due to treatment system performance and outfall configuration and placement. The total chlorine residual effluent limitations are retained in this Order in the event the Discharger implements chlorine-based disinfection in the future and to verify compliance with Ocean Plan Table 1 pollutant monitoring requirements which include total chlorine residual.

[8] As specified in section VII.G of this Order and section V of the MRP (Attachment E).

[9] As specified in section VII.G of this Order and section V of the MRP (Attachment E).

[10] Endosulfan shall mean the sum of endosulfan-alpha and –beta and endosulfan sulfate.

[11] HCH shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

[12] For compliance determination with effluent limitations, except acute and chronic toxicity, the Discharger shall report the calculated Co instantaneous maximum, daily maximum, and 6-month median results for comparison to effluent limitations.

The Co shall be calculated and reported using the equation below:

$$Co = \frac{Ce + DmCs}{1 + Dm}$$

where:

Co = the concentration at the completion of initial dilution to be compared to effluent limitations in Table 6 of this Order for compliance determination.

Ce = effluent concentration reported for Monitoring Location EFF-001.

Cs = background seawater concentration provided in Table 3 of the 2015 Ocean Plan (with all metals expressed as total recoverable concentration, µg/L

Dm = the minimum probable initial dilution corresponding to Concentrate Waste Dilution Ratio as follows:

Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent	Dm for Compliance with Ocean Plan Table 1 Parameters (except acute toxicity)
0-0.127	145
0.128 – 0.421	259
0.422 – 0.744	388
≥ 0.745	473

[13] For Acute and Chronic Toxicity, the Discharger shall calculate and report Pass/Fail at the Instream Waste Concentration (IWC) where the IWC is determined in the following table:

Table 7. Instream Waste Concentration (IWC)

Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent[1]	Dm for Compliance with Whole Effluent Toxicity Limits		IWC (%)[3]	
	Acute Toxicity[2]	Chronic Toxicity	Acute Toxicity	Chronic Toxicity
0-0.127	14.5	145	6.4	0.68
0.128 – 0.421	25.9	259	3.7	0.38
0.422 – 0.744	38.8	388	2.5	0.26
≥ 0.745	47.3	473	2.0	0.21

[1] Where the toxicity test requires sample collection on multiple days, the Discharger shall base the IWC on the lowest anticipated concentrate waste dilution ratio over the course of the discharge. The minimum probable initial dilution is expressed as parts seawater per part wastewater. For example, a Dm of 145 represents 1 part solute to 145 parts dilutant for a total of 146 parts.

[2] Dm (acute toxicity) = 10% of Dm

[3] IWC $= \frac{1}{Dm+1} \; x \; 100$

Table 8. Effluent Limitations for the Protection of Human Health – (Non-Carcinogens)

Parameter	Units	Average Monthly
Acrolein	µg/L	220
	lbs/day[1]	7,900
Antimony	µg/L	1,200
	lbs/day[1]	43,000
Bis(2-Chloroethoxy)Methane	µg/L	4.4
	lbs/day[1]	160
Bis(2-Chloroisopropyl)Ether	µg/L	1,200
	lbs/day[1]	43,000
Chlorobenzene	µg/L	570
	lbs/day[1]	21,000
Di-n-Butyl Phthalate	µg/L	3,500
	lbs/day[1]	130,000
Dichlorobenzenes	µg/L	5,100
	lbs/day[1]	180,000
Diethyl Phthalate	µg/L	33,000

Parameter	Units	Average Monthly
	lbs/day[1]	1,200,000
Dimethyl Phthalate	µg/L	820,000
	lbs/day[1]	30,000,000
2-Methyl-4,6-Dinitrophenol	µg/L	220
	lbs/day[1]	7,900
2,4-Dinitrophenol	µg/L	4.0
	lbs/day[1]	140
Ethylbenzene	µg/L	4,100
	lbs/day[1]	150,000
Fluoranthene	µg/L	15
	lbs/day[1]	540
Hexachlorocyclopentadiene	µg/L	58
	lbs/day[1]	2,100
Nitrobenzene	µg/L	4.9
	lbs/day[1]	180
Thallium	µg/L	2.0
	lbs/day[1]	72
Toluene	µg/L	85,000
	lbs/day[1]	3,100,000
Tributyltin	µg/L	0.0014
	lbs/day[1]	0.050
1,1,1-Trichloroethane	µg/L	540,000
	lbs/day[1]	19,000,000

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

Table 9. Effluent Limitations for the Protection of Human Health – (Carcinogens)

Parameter	Units	Average Monthly
Acrylonitrile	µg/L	0.1
	lbs/day[1]	3.6
Aldrin	µg/L	0.000022
	lbs/day[1]	0.00079
Benzene	µg/L	5.9
	lbs/day[1]	210
Benzidine	µg/L	0.000069
	lbs/day[1]	0.0025
Beryllium	µg/L	0.033

Parameter	Units	Average Monthly
	lbs/day[1]	1.2
Bis(2-Chloroethyl)Ether	µg/L	0.045
	lbs/day[1]	1.6
Bis(2-Ethylhexyl)Phthalate	µg/L	3.5
	lbs/day[1]	130
Carbon Tetrachloride	µg/L	0.90
	lbs/day[1]	32
Chlordane[2]	µg/L	0.000023
	lbs/day[1]	0.00083
Chlorodibromomethane	µg/L	8.6
	lbs/day[1]	310
Chloroform	µg/L	130
	lbs/day[1]	4,700
1,4 Dichlorobenzene	µg/L	18
	lbs/day[1]	650
3,3'-Dichlorobenzidine	µg/L	0.0081
	lbs/day[1]	0.29
1,2-Dichloroethane	µg/L	28
	lbs/day[1]	1,000
1,1-Dichloroethylene	µg/L	0.9
	lbs/day[1]	32
Dichlorobromomethane	µg/L	6.2
	lbs/day[1]	220
Dichloromethane (Methylene Chloride)	µg/L	450
	lbs/day[1]	16,000
Dieldrin	µg/L	0.00004
	lbs/day[1]	0.0014
2,4-Dinitrotoluene	µg/L	2.6
	lbs/day[1]	94
1,2-Diphenylhydrazine	µg/L	0.16
	lbs/day[1]	5.8
Halomethanes[3]	µg/L	130
	lbs/day[1]	4,700
Heptachlor	µg/L	0.00005
	lbs/day[1]	0.0018
Heptachlor Epoxide	µg/L	0.00002
	lbs/day[1]	0.00072
Hexachlorobenzene	µg/L	0.00021
	lbs/day[1]	0.0076
Hexachlorobutadiene	µg/L	14
	lbs/day[1]	500
Hexachloroethane	µg/L	2.5

Parameter	Units	Average Monthly
	lbs/day[1]	90
Isophorone	µg/L	730
	lbs/day[1]	26,000
N-Nitrosodimethylamine	µg/L	7.3
	lbs/day[1]	260
N-Nitrosodi-n-Propylamine	µg/L	0.38
	lbs/day[1]	14
N-Nitrosodiphenylamine	µg/L	2.5
	lbs/day[1]	90
Polychlorinated Biphenyls (PCBs)[4]	µg/L	0.000019
	lbs/day[1]	0.00068
TCDD Equivalents[5]	µg/L	3.9E-09
	lbs/day[1]	1.4E-07
1,1,2,2-Tetrachloroethane	µg/L	2.3
	lbs/day[1]	83
Tetrachloroethylene	µg/L	2.0
	lbs/day[1]	72
Toxaphene	µg/L	0.00021
	lbs/day[1]	0.0076
Trichloroethylene	µg/L	27
	lbs/day[1]	970
1,1,2-Trichloroethane	µg/L	9.4
	lbs/day[1]	340
2,4,6-Trichlorophenol	µg/L	0.29
	lbs/day[1]	10
Vinyl Chloride	µg/L	36
	lbs/day[1]	1,300

[1] The mass-based (lbs/day) effluent limitations in this table are based on the average dry weather flow design capacity of 29.6 MGD for the treatment facility and are therefore only good up to this flow. For flows above 29.6 MGD, mass-based effluent limitations shall be calculated individually using the concentration-based effluent limitations and the observed flow at the time of sampling per the following equation:

lbs/day = 0.00834 x Ce x Q
where:
Ce = the effluent concentration limit in µg/L
Q = observed flow rate in MGD

[2] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

[3] Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), and chloromethane (methyl chloride).

[4] Polychlorinated biphenyls (PCBs) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

[5] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

d. Bacteria. The following total coliform, fecal coliform, and enterococcus effluent limits apply at Discharge Point 001 (with compliance measured at Monitoring Location EFF-001B) if the Executive Officer concludes from a bacterial assessment (described in Receiving Water Limitation A.1) that the discharge consistently exceeds Receiving Water Limitation A.1.

i. The daily maximum total coliform density shall not exceed 10,000 MPN/100 mL.

ii. The daily maximum fecal coliform density shall not exceed 400 MPN/100 mL.

iii. The daily maximum enterococcus density shall not exceed 104 MPN/100 mL.

e. Minimum Initial Dilution. The minimum initial dilution of treated effluent at the point of discharge to Monterey Bay shall not be less than the minimum probable initial dilution (Dm) values in Table 10. The allowable Dm value corresponds to the associated ratio of seawater to the combined volume of AWPF reverse osmosis (RO) concentrate, hauled saline waste, and secondary effluent.

B. Land Discharge Specifications – Discharge Point – Not Applicable

C. Recycling Specifications - Discharge Point 002

Water reclamation requirements have been added to this permit to allow the Discharger to produce disinfected tertiary recycled water at the Salinas Valley Reclamation Project (SVRP) as per the September 12, 2017 State Water Resources Control Board's Division of Drinking Water approval.

1. Reclamation and use of tertiary treated wastewater shall adhere to applicable requirements of CWC sections 13500-13577 (Water Reclamation); California Code of Regulations title 17, sections 7583-7586; title 17 sections 7601-7605; and title 22, sections 60301-60355 (Uniform Statewide Recycling Criteria). Production and reuse of recycled water at the facility is currently regulated separately under Water Reclamation Requirements Order No. 94-082. Specifications related to recycled water production are also included here. The

Central Coast Water Board intends to rescind Order No. 94-082 and regulate the production of recycled water by this Order.

2. Recycled water production shall comply with a title 22 engineering report approved by the Division of Drinking Water that demonstrates or defines compliance with the Uniform Statewide Recycling Criteria (and amendments).

3. Recycled water shall be disinfected tertiary recycled water, as defined by title 22, section 60301.230.

4. Recycled water shall be adequately oxidized, filtered, and disinfected, as defined in title 22.

5. The Discharger shall comply with the following specifications at Discharge Point No. 002 for reclamation of tertiary treated secondary wastewater, with compliance measured at Monitoring Location REC-001, as described in the attached MRP.

Table 9. Disinfected Tertiary Recycled Water Limitations

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
BOD_5	mg/L	10	20
TSS	mg/L	10	20

6. The rate of filtration through the tertiary filters at INT-001 shall not exceed 7.5 gpm/ft^2 of surface area.

7. Filtered recycled water at INT-002 shall not exceed any of the following turbidity limits:

   a. An average of 2 NTU within a 24-hour period,

   b. 5 NTU more than 5 percent of the time within a 24-hour period, and

   c. 10 NTU at any time.

8. The concentration of total coliform bacteria measured at REC-001 (after disinfection) shall not exceed the following limits:

   a. A median MPN of 2.2 per 100 mL utilizing the bacteriological results of the last seven days for which analyses have been completed,

   b. An MPN of 23 per 100 mL in more than one sample in any 30-day period, and

   c. An MPN of 240 total coliform bacteria per 100 mL in any one sample.

9. Freeboard shall always exceed two feet in all recycled water storage ponds owned and operated by the Discharger.

10. The Discharger shall discontinue delivery of recycled water to distributors and users during any period in which it has reason to believe that the limits established in this Order are not being met. The delivery of recycled water shall not be resumed until all conditions that caused the limits to be violated have been corrected.

11. Recycled water disinfected with chlorine shall have a CT value (chlorine concentration time modal contact time) of not less than 450 mg-min/L at all times with a modal contact time of at least 90 minutes.

12. In lieu of 11 above, recycled water may be disinfected by a process that when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

13. Recycled water shall be confined to areas of authorized use at the WWTP and permitted construction projects without discharge to surface waters or drainage ways.

14. Personnel involved in producing, transporting, or using recycled water shall be informed of possible health hazards that may result from contact and use of recycled water.

15. Spray irrigation of recycled water at the WWTP or construction sites shall be accomplished at a time and in a manner to minimize ponding and contact with the public.

16. Delivery of recycled water shall be discontinued when these recycling specifications cannot be met.

17. All recycled water reservoirs and other areas with public access shall be posted with signs in English and an international symbol to warn the public that recycled wastewater is being stored or used.

18. Recycled water systems at the WWTP site shall be properly labeled and regularly inspected to ensure proper operation, absence of leaks, and absence of illegal connections.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

The following receiving water limitations are based on water quality objectives contained in the Ocean Plan and are a required part of this Order. Compliance shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed. The discharge shall not cause the following in the Pacific Ocean.

1. Bacterial Characteristics

a. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Central Coast Water Board, but including all kelp beds, the following bacteriological objectives shall be maintained throughout the water column.

30-Day Geometric Mean – The following standards are based on the geometric mean of the five most recent samples from each receiving water monitoring location.

i. Total coliform density shall not exceed 1,000 MPN per 100 mL, nor shall a single sample density;

ii. Fecal coliform density shall not exceed 200 MPN per 100 mL; and

iii. Enterococcus density shall not exceed 35 MPN per 100 mL.

Single Sample Maximum (SSM) – The following standards are allowable single sample maximums.

i. Total coliform density shall not exceed 10,000 MPN per 100 ml;

ii. Fecal coliform density shall not exceed 400 MPN per 100 mL;

iii. Enterococcus density shall not exceed 104 MPN per 100 mL; and

iv. Total coliform density shall not exceed 1,000 MPN per 100 mL when the fecal coliform to total coliform ratio exceeds 0.1

2. Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Central Coast Water Board, the following bacteriological objectives shall be maintained throughout the water column:

a. The median total coliform density shall not exceed 70 organisms per 100 mL, and in not more than 10 percent of samples shall coliform density exceed 230 organisms per 100 mL.

3. Physical Characteristics

a. Floating particulates and grease and oil shall not be visible.

b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

c. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.

d. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.

e. Discharges shall not cause exceedances of water quality objectives for ocean waters of the State established in Table 1 of the Ocean Plan.

4. Chemical Characteristics

a. The dissolved oxygen concentration shall not, at any time, be depressed more than 10 percent from that which occurs naturally as a result of the discharge of oxygen-demanding waste.

b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

c. The dissolved sulfide concentrations of waters in and near sediments shall not be significantly increased above those present under natural conditions.

d. The concentrations of substances set forth in Ocean Plan, Table 1, shall not be increased to levels in marine sediments that would degrade indigenous biota.

e. The concentration of organic materials in marine sediments shall not be increased to that which would degrade marine life.

f. Nutrient materials shall not cause objectionable aquatic growth or degrade indigenous biota.

5. **Biological Characteristics**

a. Marine communities, including vertebrate and plant species, shall not be degraded.

b. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

6. **Radioactivity**

a. Discharge of radioactive waste shall not degrade marine life.

b. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

7. **General Standards**

a. The discharge shall not cause a violation of any applicable water quality objective or standard for receiving waters adopted by the Central Coast Water Board or State Water Resources Control Board (State Water Board), as required by the CWA and regulations adopted thereunder.

b. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.

c. Waste effluents shall be discharged in a manner that provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.

B. Groundwater Limitations

Activities at the WWTP shall not cause exceedance/deviation from the following water quality objectives for groundwater established by the Basin Plan.

1. Groundwater shall not contain taste or odor producing substances in concentrations that adversely affect beneficial uses.

2. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D.

2. The Discharger shall comply with all Central Coast Water Board specific Standard Provisions also included in Attachment D of this Order.

3. Before changing the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of an inland watercourse, in any way, the Discharger shall file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change (Water Code section 1211).

B. Monitoring and Reporting Program (MRP) Requirements

Pursuant to Water Code sections 13267 and 13383, the Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order, and all notification and general reporting requirements throughout this Order and Attachment D. Where notification or general reporting requirements conflict with those stated in the MRP (e.g., annual report due date), the Discharger shall comply with the MRP requirements. All monitoring shall be conducted according to 40 C.F.R. part 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*.

The Discharger is required to provide technical or monitoring reports because it is the owner and operator responsible for the waste discharge and compliance with this Order. The Central Coast Water Board needs the information to determine the Discharger's compliance with this Order, assess the need for further investigation or enforcement action, and to protect public health and safety and the environment.

C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a California Ocean Plan (Ocean Plan) Table 1 water quality objective.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Evaluation Requirements

This Provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge consistently exceeds an effluent limitation for toxicity specified in Section IV of this Order, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) in accordance with the Discharger's approved TRE Work Plan.

A TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases: characterization; identification; and confirmation using aquatic organism toxicity tests. The TRE shall include all reasonable steps to identify the

source of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level once the source of toxicity is identified.

i. **TRE Work Plan.** Within ninety days of the permit effective date, the Discharger shall prepare and submit an updated copy of their TRE Work Plan to the Central Coast Water Board and U.S. EPA Region 9 for review and approval. The TRE Work Plan shall be prepared in accordance with *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99-022). This TRE Work Plan shall include steps the Discharger intends to implement if toxicity is measured above an effluent limitation and should include, at minimum: a) a description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency, b) a description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility, and c) if a TIE is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).

ii. **Accelerated Monitoring and TRE Initiation**. When an effluent limitation for acute or chronic toxicity is exceeded during regular whole effluent toxicity (WET) monitoring, the Discharger shall initiate accelerated monitoring as required in the Accelerated Monitoring Specifications of this Provision. The Discharger shall initiate a TRE to address effluent toxicity if any WET test results exceeds the acute or chronic effluent limit during accelerated monitoring. The Discharger shall take all reasonable steps to reduce toxicity once the source of toxicity is identified.

b. **Accelerated Monitoring Specifications**: If the chronic toxicity effluent limit is exceeded during regular chronic toxicity monitoring, the Discharger shall initiate accelerated monitoring within 14 days of notification by the laboratory of the exceedance.

i. The following protocol shall be used for accelerated monitoring and TRE initiation.

(a) If accelerated monitoring is triggered on the basis of an acute or chronic toxicity effluent limit exceedance, accelerated WET testing shall utilize a 5-concentration plus control dilution series bracketing the discharge instream waste concentration (IWC), thus permitting an evaluation of magnitude of effect through point estimate (i.e., EC25) analysis.

(b) If the acute toxicity effluent limit is exceeded during regular acute toxicity monitoring, the Discharger shall immediately resample the effluent and retest for acute toxicity.

(c) If the toxicity effluent limit is exceeded and the source of toxicity is known (e.g., a temporary plant upset), the Discharger shall make necessary corrections to the facility and shall conduct one additional toxicity test using the same species and test method that exhibited toxicity. If the additional toxicity test does not

exceed the toxicity effluent trigger, then the Discharger may return to their regular testing frequency. However, notwithstanding the accelerated monitoring results, if there is evidence of a pattern of recurring effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

(d) If the toxicity effluent limit is exceeded and the source of toxicity is not known, the Discharger shall conduct five additional toxicity tests conducted once every two weeks using the same species and test method that exhibited toxicity. If none of the additional toxicity tests exceed the toxicity trigger, then the Discharger may return to their regular testing frequency. However, notwithstanding the accelerated monitoring results, if there is evidence of a pattern of recurring effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

(e) If the result of any accelerated toxicity test exceeds the acute or chronic effluent limit, the Discharger shall cease accelerated monitoring and begin a TRE to investigate the cause(s) of, and identify corrective actions to reduce or eliminate effluent toxicity. Within thirty days of notification by the laboratory of any test result exceeding the acute or chronic effluent limit during accelerated monitoring, the Discharger shall develop and implement a TRE Action Plan which shall include at a minimum: a) specific actions the Discharger will take to investigate, identify, and correct the causes of toxicity, b) specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity, and c) a schedule for these actions. This TRE Action Plan and schedule are subject to approval and modification by the Executive Officer. A failure to conduct TRE-related toxicity tests or a TRE within an approved period may result in the establishment of numerical effluent limitations for chronic toxicity in a permit or appropriate enforcement action. While in a TRE, TRE-related toxicity testing conducted as part of the TRE investigation will not be subject to enforcement action.

(f) Results of the initial failed test and any toxicity monitoring results subsequent to the failed test shall be reported as soon as reasonable to the Central Coast Water Board EO. The EO will determine whether it is appropriate to initiate enforcement action, require the Discharger to implement TRE requirements (sections VI.C.2.a of this Order), or implement other measures.

c. Water Contact Monitoring (Bacterial Characteristics)

In accordance with Ocean Plan section III.D.1.b, if a single sample exceeds any of the bacteriological SSM standards contained within section V.A.1 of this Order, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. The Executive Officer (EO) shall be notified within 24 hours of receiving analytical results and repeat sampling shall be conducted within 24 hours of receiving analytical results and continued based per a sampling frequency as directed by the EO until

the sample result is less than the SSM standard or until a sanitary survey is conducted to determine the source of the high bacterial densities.

When repeat sampling is required because of an exceedance of any one single sample density, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

(This requirement is also footnoted in Table E-14 of section VIII.A of Attachment E Monitoring and Reporting Program.)

d. Brine Waste Disposal Study

Prior to increasing the volume of desalination brine waste discharged through the ocean outfall beyond 375,000 gallons maximum daily flow, the Discharger shall submit a brine waste disposal study to the Executive Officer for approval. The study shall include, at a minimum, the following elements: (1) a projection of the desalination brine volume and characteristics, (2) an assessment of the impact of the increased desalination brine volume on permit compliance, (3) an assessment of the impact of the increased desalination brine volume on the minimum probable initial dilution at the point of discharge, (4) a detailed description of any desalination brine waste disposal facilities that are proposed to accommodate the increased desalination brine volume and facilitate blended secondary effluent and desalination brine wastes flow metering and sampling, and (5) a schedule for the design and construction of the new desalination brine disposal facilities. The Order includes a requirement to send a copy of the study to the Monterey Bay National Marine Sanctuary (MBNMS).

e. Ocean Outfall and Diffuser Monitoring

The Discharger shall conduct a dye dilution study once per year for 4 years to visually inspect the entire outfall structure to determine whether there are leaks, potential leaks, or malfunctions. This inspection shall be conducted along the outfall pipe/diffuser system from landfall to its ocean terminus. During year 5, a physical outfall inspection will be conducted to check the structural integrity and possible external blockage of ports by rocks or sand deposition. Results of the dye studies and outfall inspections shall be reported in the applicable annual reports.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

i. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML;

ii. The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

iii. There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation. Such evidence may include: health advisories for fish consumption; presence of whole effluent toxicity; results of benthic or aquatic organism tissue sampling; sample results from analytical methods more sensitive than methods included in the permit; and the concentration of the pollutant is reported as DNQ and the effluent limitation is less than the MDL.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Central Coast Water Board:

i. An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

ii. Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;

iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;

iv. Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and

v. An annual status report that shall be sent to the Central Coast Water Board including:

a) All PMP monitoring results for the previous year;

b) A list of potential sources of the reportable pollutant(s);

c) A summary of all actions undertaken pursuant to the control strategy; and

d) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

a. The Facility shall be operated as specified under Standard Provision I.D of Attachment D.

5. Special Provisions for Publicly Owned Treatment Works (POTWs)

a. Biosolids Management

Provisions regarding sludge handling and disposal ensure that such activity will comply with all applicable regulations. 40 C.F.R. part 503 sets forth U.S. EPA's final rule for the use and disposal of biosolids, or sewage sludge, and governs the final use or disposal of biosolids. The intent of this federal program is to ensure that sewage sludge is used or disposed of in a way that protects both human health and the environment. U.S. EPA's regulations require that producers of sewage sludge meet certain reporting, handling, and disposal requirements. As the U.S. EPA has not delegated the authority to implement the sludge program to the State of California, the

enforcement of sludge requirements that apply to the Discharger remains under U.S. EPA's jurisdiction at this time. U.S. EPA, not the Regional Water Board, will oversee compliance with 40 C.F.R. part 503.

b. Pretreatment

The Discharger shall be responsible for the performance of all pretreatment requirements contained in 40 C.F.R. part 403 and shall be subject to enforcement actions, penalties, fines, and other remedies by the U.S. EPA, or other appropriate parties, as provided in the CWA, as amended (33 USA 1351 et seq.). The Discharger shall implement and enforce its Approved Publicly Owned Treatment Works (POTW) Pretreatment Program. Implementation of the Discharger's Approved POTW Pretreatment Program is hereby made an enforceable condition of this permit. U.S. EPA may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements as provided in the CWA.

The Discharger shall enforce the requirements promulgated under sections 307 (b), (c), & (d) and 402 (b) of the CWA. The Discharger shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge. The Discharger shall perform the pretreatment functions as required in 40 C.F.R. part 403, including, but not limited to:

i. Implement necessary legal authorities as provided in 40 C.F.R. section 403.8 (f)(1);

ii. Enforce the pretreatment requirements under 40 C.F.R. sections 403.5 and 403.6;

iii. Implement the programmatic functions as provided in 40 C.F.R. 403.8 (f)(2); and,

iv. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 C.F.R. section 403.8 (f)(3).

The Discharger shall submit annually a report to the U.S. EPA - Region 9, the Central Coast Water Board, and the State Water Board describing the Discharger's pretreatment activities over the previous twelve months. In the event that the Discharger is not in compliance with conditions or requirements of this permit affected by the pretreatment program, it shall also include reasons for non-compliance and a statement how and when it shall comply. This annual report is due by March 1 of each year and shall contain, but not be limited to, the contents described in the "Pretreatment Reporting Requirements" contained in the Monitoring and Reporting Program No. R3-2018-0017.

c. Collection System

The Discharger is subject to the requirements of, and must comply with State Water Resources Control Board (State Water Board) Order 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, including monitoring and reporting requirements as amended by State Water Board Order WQ 2013-0058-EXEC and any subsequent order.

d. Resource Recovery from Anaerobically Digestible Material

If the Discharger will receive hauled-in anaerobically digestible material for injection into an anaerobic digester, the Discharger shall notify the Central Coast Water Board and develop and implement Standard Operating Procedures for this activity. The Standard Operation Procedures shall be developed prior to receiving hauled-in anaerobically digestible material. The Standard Operating Procedures shall address material handling, including unloading, screening, or other processing prior to anaerobic digestion; transportation; spill prevention; and spill response. In addition, the Standard Operating Procedures shall address avoidance of the introduction of materials that could cause interference, pass-through, or upset of the treatment processes; avoidance of prohibited material; vector control; odor control; operation and maintenance; and the disposition of any solid waste segregated from introduction to the digester. The Discharger shall train its staff on the Standard Operating Procedures and shall maintain records for a minimum of five years for each load received, describing the hauler, waste type, and quantity received. In addition, the Discharger shall maintain records for a minimum of five years for the disposition, location, and quantity of cumulative pre-digestion-segregated solid waste hauled offsite.

6. Other Special Provisions

a. Discharges of Storm Water

For the control of storm water discharged from the site of the wastewater treatment and disposal facilities, if applicable, the Discharger shall seek authorization to discharge under and meet the requirements of the State Water Resources Control Board's Water Quality Order 2014-0057- DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

b. Concentrate Waste Dilution Ratio

For compliance with Ocean Plan Table 1 effluent limitations at Discharge Point 001, the Discharger will report a calculated concentration using an appropriate Dm, according to instructions in the MRP sections IV.B. The Dm is assigned on a given day based on the ratio of RO concentrate, and hauled saline waste from reverse osmosis or ion exchange regeneration systems to total effluent, referred to in this permit as the concentrate waste dilution ratio (see Table 10). Calculated concentrations are reported for Monitoring Location EFF-001B. Compliance is then determined by comparing limitations or Ocean Plan Table 1 objectives at Discharge Point 001 to calculated results at Monitoring Location EFF-001B. In addition, raw effluent monitoring results shall be reported for Monitoring Location EFF-001.

Table 10. Concentrate Waste Dilution Ratio Ranges and Corresponding Dilution[1]

Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent	Dm for Compliance with Ocean Plan Table 1 Parameters
0-0.127	145
0.128 – 0.421	259
0.422 – 0.744	388
≥ 0.745	473

[1] Minimum probable initial dilution expressed as parts seawater per part wastewater.

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

A. General

Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Central Coast and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

B. Multiple Sample Data

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple samples analyses and the data set contains one or more reported determinations of "Detected, but Not Quantified" ("DNQ", or "Not Detected" (ND), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL)

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the

AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

D. Average Weekly Effluent Limitation (AWEL)

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

E. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Acute and Chronic Toxicity

The discharge is subject to determination of "Pass" or "Fail" from an acute or chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-004, 2010), Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge "in-stream" waste concentration (IWC) response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." Acute and chronic WET testing is to be performed with only two test concentrations, the laboratory control and a single effluent treatment (the IWC). As discussed in Fact Sheet section IV.C.6, evaluation of concentration-response does not apply to single-concentration (IWC) tests where the TST is applied. Concentration-response is required during accelerated monitoring tests.

The MDEL for acute or chronic toxicity is exceeded and a violation will be flagged when an acute or chronic toxicity test, analyzed using the TST statistical approach, results in "Fail."

The acute and chronic toxicity MDELs are set at the IWC for the discharge and expressed in units of the TST statistical approach ("Pass" or "Fail"). The IWC will depend on the concentrate waste dilution ratio and applicable Dm as provided in Table 11 below.

Table 11. Instream Waste Concentration (IWC)

Ratio of RO Concentrate + Hauled Saline Waste to Total Effluent[1]	Dm for Compliance with Effluent Limits		IWC	
	Acute Toxicity[2]	Chronic Toxicity	Acute Toxicity	Chronic Toxicity
0-0.127	14.5	145	6.4	0.69
0.128 – 0.421	25.9	259	3.7	0.39
0.422 – 0.744	38.8	388	2.5	0.26
≥ 0.745	47.3	473	2.0	0.21

[1] Where toxicity test requires sample collection on multiple days, the Discharger shall base the IWC on the lowest anticipated concentrate waste dilution ratio over the course of the discharge.
[2] Based on Equation 2 in section III.C.4.b of the California Ocean Plan.

G. 6-Month Median

For compliance with effluent limitations expressed as a 6-month median, the Discharger shall calculate a moving 6-month median concentration from the results reported for Monitoring Location EFF-001B and compare them to the effluent limitations at Discharge Point 001. Other requirements for compliance determination are provided in the MRP section X.B.

ATTACHMENT A – DEFINITIONS

Acute Toxicity (not applicable to Test of Significant Toxicity hypothesis testing)

a. Acute Toxicity (TUa)
Expressed in Toxic Units Acute (TUa)

$$TUa = \frac{100}{96\text{-hr LC } 50\%}$$

b. Lethal Concentration 50% (LC50)
LC50 (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard marine test species as specified in Ocean Plan Appendix III. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC50 may be determined after the test samples are adjusted to remove the influence of those substances.

When it is not possible to measure the 96-hour LC50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TUa = \frac{\log (100 - S)}{1.7}$$

where:

S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

Areas of Special Biological Significance (ASBS)
Those areas designated by the State Water Resources Control Board (State Water Board) as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of State Water Quality Protection Areas.

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)
The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Brine Waste
Waste with total dissolved solids greater than seawater. For the Central Coast of California this means total dissolved solids concentrations greater than about 33,000 mg/L.

Chlordane
Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

Chronic Toxicity (not applicable to Test of Significant Toxicity hypothesis testing):
This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

a. Chronic Toxicity (TUc)
   Expressed as Toxic Units Chronic (TUc)

$$TUc = \frac{100}{NOEL}$$

b. No Observed Effect Level (NOEL)

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Ocean Plan Appendix II.

Concentrate Waste Dilution Ratio
The ratio of reverse osmosis concentrate from the Pure Water Monterey Advanced Water Purification Facility plus hauled saline waste from reverse osmosis or ion exchange regeneration systems to total effluent.

Daily Discharge
Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

DDT
Shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

Degrade
Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

Detected, but Not Quantified (DNQ)
Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes
Shall mean the sum of 1,2- and 1,3-dichlorobenzene.

Downstream Ocean Waters
Waters downstream with respect to ocean currents.

Dredged Material
Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil."

Enclosed Bays
Indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

Endosulfan
The sum of endosulfan-alpha and -beta and endosulfan sulfate.

Estuaries and Coastal Lagoons are waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by Section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

HCH shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

Initial Dilution
The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Central Coast Water Board, whichever results in the lower estimate for initial dilution.

Instantaneous Maximum Effluent Limitation
The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation
The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

"In-stream" Waste Concentration (IWC)
The concentration of a toxicant of effluent in the receiving water expressed as percent after mixing (the inverse of the dilution factor). A discharge of 100% effluent will be considered the IWC whenever mixing zones or dilution credits are not authorized by the applicable Water Board.

Kelp Beds
For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

Mariculture
The culture of plants and animals in marine waters independent of any pollution source.

Material
(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant.

Method Detection Limit (MDL)
The minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 C.F.R. part 136, Attachment B.

Minimum Level (ML)
The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Natural Light
Reduction of natural light may be determined by the Central Coast Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Central Coast Water Board.

Not Detected (ND)
Those sample results less than the laboratory's MDL.

Ocean Waters
The territorial marine waters of the state as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the state could affect the quality of the waters of the state, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

PAHs (polynuclear aromatic hydrocarbons)
The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

PCBs (polychlorinated biphenyls)
The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of Ocean Plan Table 1 pollutants through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Central Coast Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Reported Minimum Level
The reported ML (also known as the Reporting Level or RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Central Coast Water Board either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the reported ML.

RO Concentrate
Concentrate from Reverse Osmosis process at the Advanced Water Purification Facility (AWPF).

Saline Waste
Wastewaters hauled to the WWTP from water treatment facilities. The saline waste includes the concentrate from reverse osmosis and the waste solutions from ion exchange regeneration. This waste is generally less salty than brine but more salty than wastewater.

Shellfish
Organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams and oysters).

Significant Difference
Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

Six-Month Median Effluent Limitation
The highest allowable moving median of all daily discharges for any 180-day period.

State Water Quality Protection Areas (SWQPAs)
Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolutions 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

TCDD Equivalents
The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Test of Significant Toxicity (TST)
The statistical approach described in the NPDES Test of Significant Toxicity Implementation Document (EPA 833-R10-003, 2010). TST was developed by the US EPA for analyzing WET and ambient toxicity data. Using the TST approach, the sample is declared toxic if there is greater than or equal to a 25% effect in chronic tests, or if there is greater than or equal to a 20% effect in acute tests at the permitted Instream Waste Concentration (IWC) [referred to as the toxic regulatory management decision (RMD)]. The sample is declared non-toxic if there is less than or equal to a 10% effect at the IWC in acute or chronic tests (referred to as the non-toxic RMD).

Toxicity Reduction Evaluation (TRE)
A study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

Waste
As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

Water Recycling
The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

ATTACHMENT B – MAP OF WWTP (WITH MONITORING LOCATIONS IDENTIFIED)